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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/505,321	08/20/2004	Kinya Nakatsu	056208.55243US	5168
7590 Crowell & Moring The Evenson McKeown Edwards & Lenahan Intellectual Property Law Group 1001 Pennsylvania Avenue NW Washington, DC 20004-2595			EXAMINER MCCLLOUD, RENATA D	
			ART UNIT 2837	PAPER NUMBER
			MAIL DATE 02/20/2009	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/505,321

Applicant(s)

NAKATSU ET AL.

Examiner

RENATA MCCLOUD

Art Unit

2837

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 20 August 2004.
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-41 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☐ Claim(s) _____ is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☒ Claim(s) 1-41 are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SF/ICE)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. This application contains claims directed to more than one species of the generic invention. These species are deemed to lack unity of invention because they are not so linked as to form a single general inventive concept under PCT Rule 13.1.

The species are as follows:

Embodiment 1: Figs. 1-9;

Embodiment 2: Figs. 10-12;

Embodiment 3: Figs. 13-15;

Embodiment 4: Figs. 16-18;

Embodiment 5: Figs. 19-20;

Embodiment 6: Figs 21-22;

Embodiment 7: Figs. 23-25;

Embodiment 8: Figs. 26-31;

Embodiment 9: Fig. 32;

Embodiment 10: Figs. 33-37;

Embodiment 11: Figs. 38-39;

Embodiment 12: Fig. 40;

Embodiment 13: Figs: 41-43;

Embodiment 14: Figs. 44-46;

Embodiment 15: Figs. 47-49.

Embodiment 16: Fig. 50;

Embodiment 17: Fig. 51;

Embodiment 18: Fig. 52;

Embodiment 19: Fig. 53;

Embodiment 20: Fig. 54.

Applicant is required, in reply to this action, to elect a single species to which the claims shall be restricted if no generic claim is finally held to be allowable. The reply must also identify the claims readable on the elected species, including any claims subsequently added. An argument that a claim is allowable or that all claims are generic is considered non-responsive unless accompanied by an election.

Upon the allowance of a generic claim, applicant will be entitled to consideration of claims to additional species which are written in dependent form or otherwise include all the limitations of an allowed generic claim as provided by 37 CFR 1.141. If claims are added after the election, applicant must indicate which are readable upon the elected species. MPEP § 809.02(a).

The following claim(s) are generic: none.

2. The species listed above do not relate to a single general inventive concept under PCT Rule 13.1 because, under PCT Rule 13.2, the species lack the same or corresponding special technical features for the following reasons: embodiment 1 relates to executing digital corrections; embodiment 2 relates to flexibly changing the shape of connection terminals to increase the degree of flexibility of the connection system; embodiment 3 relates to integrating a resin formed body blended with magnetic powder and a detection conductor into a magnetic circuit to improve the amount of magnetic flux; embodiment 4 relates to preventing the magnetic flux generated by the detection current flow from decreasing; embodiment 5 relates to inhibiting current density in the detection conductor from being inconsistent; embodiment 6 relates to eliminating wiring on the self and other layers which are in proximity to the detection conductor and magnetic generating unit; embodiment 7 relates to connection terminals of the magnetic detecting unit not directly connected to the control board; embodiment 8 relates to reducing magnetic noise components; embodiment 9 relates to correcting a wrong value due to a foreign magnetic field; embodiment 10 relates to discharging Joule heat; embodiment 11 relates to detecting magnetic fluxes having components vertical to the power module or parallel to the perpendicular line which vertically intersects with the power module; embodiment 12 relates to configuring a conductor consisting of a detection conductor and a current detection electrode; embodiment 13 relates to installing noise control parts in proximity to the magnetic

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detecting semiconductor element; embodiment 14 relates to improving the flux inputted in to the magnetic detecting unit and reducing the influence of noise magnetic flux generated; embodiment 15 relates to improving the accuracy of the distance between the magnetic detecting unit and the detection conductor; embodiment 16 is deemed towards a hybrid car, embodiment 17 is deemed towards a four wheel drive vehicle, embodiment 18 deemed towards a vehicle; embodiment 19 deemed towards a solar power generating system, embodiment 20 deemed towards an electric power system.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement may be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To preserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

3. Applicant is reminded that upon the cancellation of claims to a non-elected invention, the inventorship must be amended in compliance with 37 CFR 1.48(b) if one or more of the currently named inventors is no longer an inventor of at least one claim remaining in the application. Any amendment of inventorship must be accompanied by a request under 37 CFR 1.48(b) and by the fee required under 37 CFR 1.17(i).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to RENATA MCCLOUD whose telephone number is (571)272-2069. The examiner can normally be reached on Mon.- Fri. from 5:30 am - 2pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Walter Benson can be reached on (571) 272-2800 ext. 37. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Renata McCloud/
Examiner, Art Unit 2837

Application Number**Application/Control No.**

10/505,321

Examiner

RENATA MCCLOUD

**Applicant(s)/Patent under
Reexamination**

NAKATSU ET AL.

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